

Heads-up Paper

Training and Certification of Lock and Dam Operators

Purpose of this Heads-up Paper

This is an informal document being distributed by the IMTS Working Group. It is intended to give a “heads-up” to members of the IMTS workforce at locks and dams that we have formed an action team to start work on implementing the improvement idea called “Training and Certification of Lock and Dam Operators.” Interested individuals can send ideas, comments and suggestions on this effort at any time to Dave Sneberger, the action team leader, or to the IMTS e-mail address IMTS@usace.army.mil.

Of course, the action team will follow the open, participative process that is the heart of the IMTS standard way of doing things. So draft documents will be available for review in the future as the team makes progress. The documents will contain the proposed details of the Training and Certification program. Examples of what will be in those draft documents are as follows:

- Training Manual
- Curriculum and training approach
- Certification Process

In short, this informal document is to let people know that we have started work on this improvement idea and welcome comments, ideas and suggestions. It is advance notification of important upcoming events, including opportunities to review and comment on draft documents that will have a major impact upon the IMTS workforce at locks and dams.

Where did the idea for Training and Certification come from?

This idea was part of a group of ideas generated by the IMTS workforce and industry during a NavLocks study conducted in 2007-8. The ideas were explained in a series of briefings and newsletters by the NavLocks study team. After receiving approval for the ideas, the proposed improvements were written up in more detail in a draft report and circulated for review and comment by the workforce and USACE leaders. After approval of the report, the details on the improvements and the implementation methods were published in the final report from the study. The final report is available at <http://www.navlocks.usace.army.mil/>.

Why is this important?

The training and certification program is for the people who operate the IMTS locks and dams. The equipment and facilities are valued in the hundred of millions of dollars. There are a large number of personnel at our lock and dam facilities that can be called upon to operate this equipment.

Those people can face situations that require corrective or emergency actions to be performed quickly. They need to have sound judgment and a proper understanding of the principles of operations of lock and dams. Without this, we are at risk for the following:

- Health and safety of the towing industry, other users of our Navigation Facilities, the public and IMTS employees
- Potential damage to lock and dam infrastructure that can cost millions to repair
- Accidents that would lead to disruptions of the navigation traffic on a river system or waterway. Even a short disruption in navigation access can cost the navigation industry millions of dollars.

In recognition of the importance of this effort, the training and certification of lock and dam operators has been given a top priority by the IMTS Board of Directors and the Chief of Engineers.



Lock and Dam operators are entrusted with the lives of others and millions of dollars worth of equipment and facilities; hence, their training and certification is a top priority.

How will this training and certification be done?

The proposed method is being developed by the action team. The current concept being discussed is as follows:

- The IMTS action team will produce the draft training materials, curriculum and certification process.
- The draft materials and approach will be based on a proven training program that has been in place for more than ten years and subject to a thorough review and approval process.
- After these are reviewed and approved, the lockmaster at each lock and dam site will oversee the training and certification program at that site using those approved materials and the process.
- The lockmaster and senior leaders at each site will write site-specific sections to add to the manual using the guidelines, outline and example from the IMTS Action team.
- The lockmaster may select a training coordinator for each area or site to administer the training and provide recommendations to the lockmaster on certification.
- Requirements for training and certification of new employees will be included in the job announcements and job descriptions.
- After being selected for a position, each new employee will follow the program at the project site as directed by the training coordinator. The steps will include
 - Read specific sections of the training manual, complete assignments for that section and pass the test.
 - Repeat this process for the remaining sections of the manual.
 - All of this is conducted at the local project site within the first 12 months as part of the on-the-job training.
- At the successful completion of training and certification, the new employee will receive a certificate or diploma and the insignia of a certified lock operator.
- Of course existing personnel can elect to enhance their knowledge and skills by taking the course, passing the tests and being certified as lock operators.



The overall end goal is a highly-skilled lock and dam operator who wears the insignia proudly!

What are the benefits of this?

The training and certification program will provide the following benefits:

- Provide a single, IMTS-wide objective standard for certification of lock and dam operators that will promote excellence and recognize the achievements of operators.
- Allow the training principles and materials of successful programs in several districts (their “best practices”) to be shared throughout the IMTS and thereby reduce the time and costs for others to develop a training program.
- Enhance the skills of lock and dam operators to deal with the complex situations they can face (especially in emergency or unusual situations) and thereby reduce risks to lives and property.

<i>Training and Certification Reduces Risk</i>	
<i>Category</i>	<i>Description of reduced risk</i>
<i>Health and Safety of Navigation system users, the public and IMTS employees</i>	Sharing experiences from accidents/incidents vividly demonstrates potential impacts and massive forces involved at L&Ds; this heightens sensitivity to safety and increases the focus on operating the L&D safely.
<i>Lock and Dam Infrastructure</i>	Enhanced knowledge of all facets of operational conditions increases ability and responsiveness of operator to deal with complex situations (such as interpreting what to do when a part fails) and take action to avoid damage to equipment and facilities that can cost millions of dollars and many months to repair.
<i>Access to Navigation System by Users</i>	Training to a higher standard and increased situational awareness will reduce risk to equipment and facility damage that could lead to disruption of a Navigation system that might ultimately cost commercial users millions of dollars when traffic is blocked along a major navigation artery.

How can I participate?

IMTS employees can participate in any of several ways:

- Read newsletter articles and review draft documents about the training and certification program; share this information with others and discuss it.
- Send comments, ideas and suggestions to Dave Sneberger and the IMTS via the e-mail address IMTS@usace.army.mil.
- During the roll-out phase, lockmasters can participate in the “train the trainer” workshops and share ideas and past experiences.
- An existing employee at a lock and dam site can volunteer to help write part of the site-specific sections for the manual for that site.
- An existing employee can volunteer to be the first to take the course on a trial run and provide feedback, leading the way to a highly effective training program and being the first to achieve certification at the site.

What is the current status of this effort?

An action team has been formed. They are working on the proposed approach and writing draft documents. They will provide draft documents for review. The overall target is to have the training and certification ready for use by 31 Jan 2011. This information is a heads-up on the work being done. Send ideas and suggestions to Dave Sneberger or IMTS@usace.army.mil.